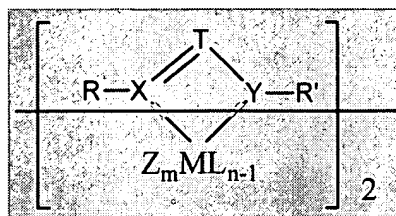
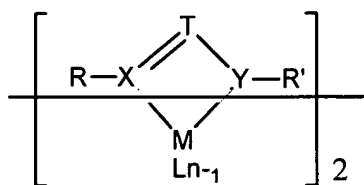
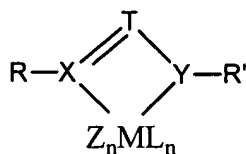
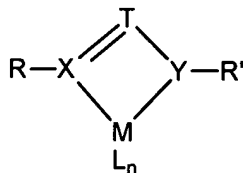


# AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A catalyst precursor composition represented by one or more:



wherein T is a bridging group containing 2 or more bridging atoms;

M is an atom ~~a metallic element~~ selected from Groups ~~1 to 15~~, 3 to 13 and the Lanthanide series of the Periodic Table of the Elements,

Z is a coordination ligand;

each L is a monovalent, bivalent, or trivalent anionic ligand;

n is an integer from 1 to 6;

m is an integer from 1 to 3;

~~X and Y are heteroatoms each independently selected from~~ is nitrogen[,], oxygen, sulfur, and or phosphorus;

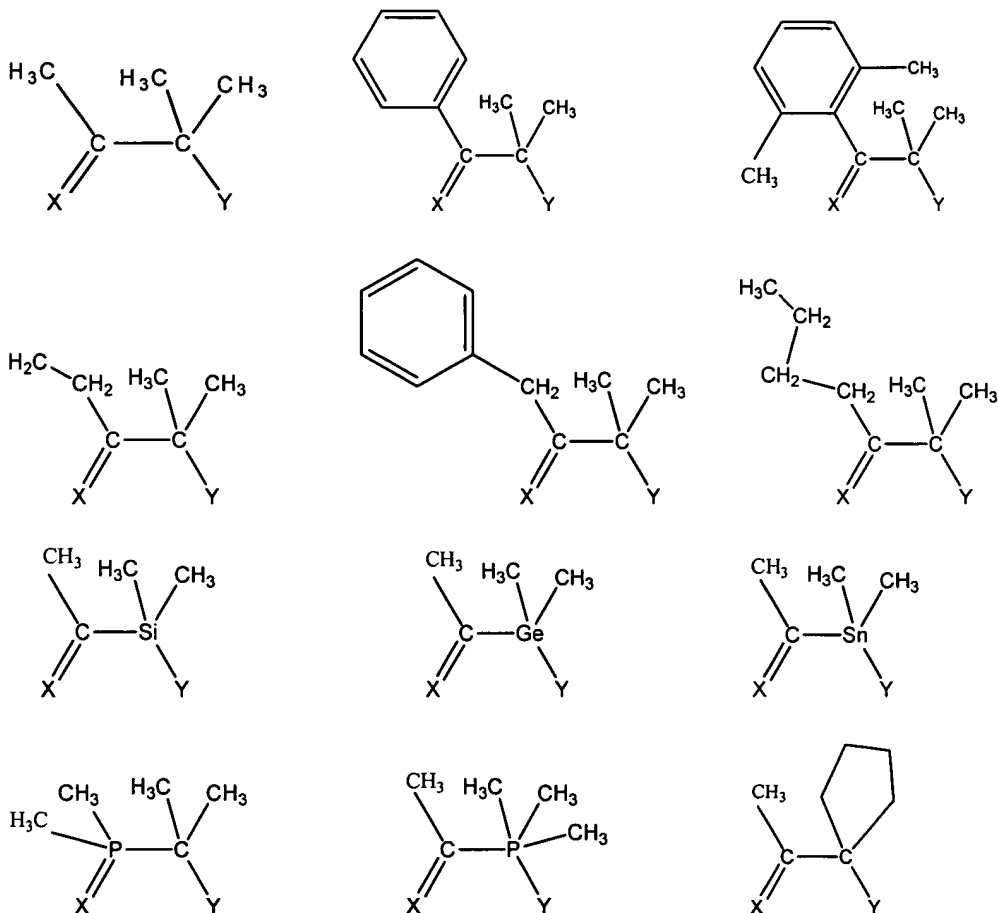
Y is a heteroatom and is selected from the group consisting of nitrogen, phosphorus, oxygen, and sulfur;

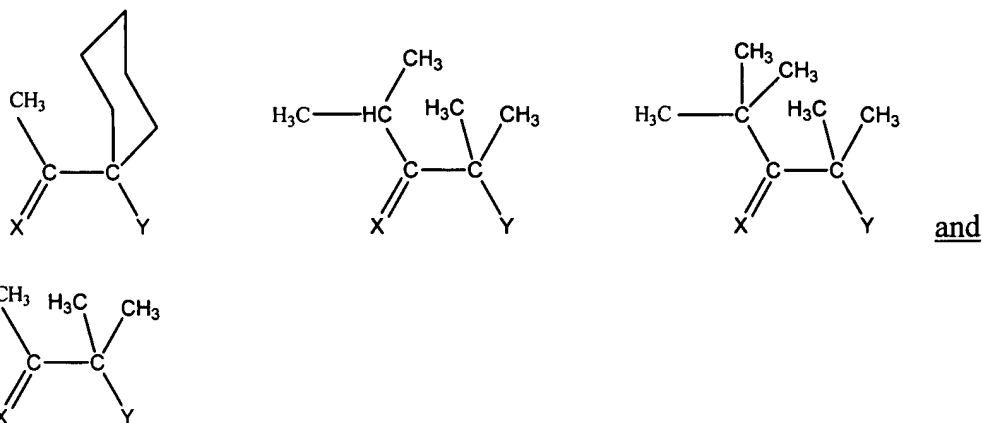
R is a non-bulky substituent that has relatively low steric hindrance with respect to X;  
and

R' is a bulky substituent that is sterically hindering with respect to Y.

2. (Original) The catalyst precursor composition of claim 1, wherein T contains 2 or 3 bridging atoms and from 2 to 50 non-hydrogen atoms, at least one of which is a Group 14 atom.

3. (Original) The catalyst precursor composition of claim 1, wherein T contains at least two primary alkyl groups on the atom adjacent to Y.
4. (Currently Amended) The catalyst precursor composition of claim 1, wherein T contains a dimethyl group on the atom adjacent to Y.
5. (Currently Amended) The catalyst precursor composition of claim 1, wherein T is selected from the group consisting of:

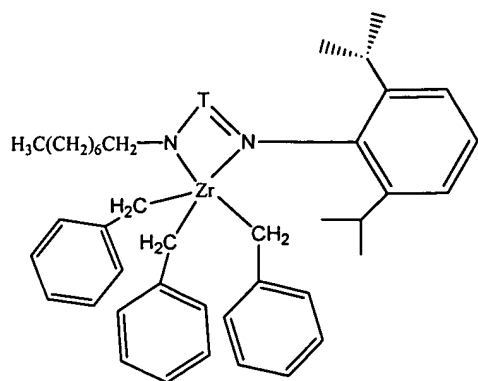




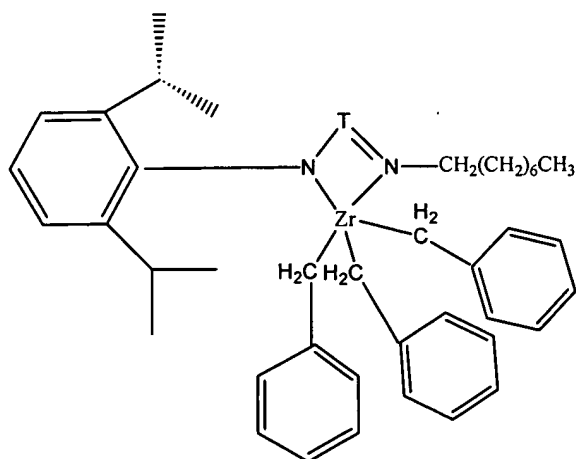
wherein X and Y are provided for convenience and are not part of the bridging group.

6. (Currently Amended) The catalyst precursor composition of claim 1, wherein Z is selected from at least one of triphenylphosphine, a tris(C<sub>1</sub>-C<sub>6</sub> alkyl) phosphine, a tricycloalkyl phosphine, a diphenyl alkyl phosphine, a dialkyl phenyl phosphine, a trialkylamine, an arylamine, a substituted or unsubstituted C<sub>2</sub> to C<sub>20</sub> alkene, an ester group, a C<sub>1</sub> to C<sub>4</sub> alkoxy group, an amine group, a carboxylic acid, a ~~and~~ di(C<sub>1</sub> to C<sub>3</sub>) alkyl ether, ~~an~~ an  $\eta^4$ -diene, tetrahydrofuran, and a nitrile.
7. (Currently Amended) The catalyst precursor composition of claim 1, wherein each L is ~~an anionic ligand independently selected from those containing~~ contains from 1 to 50 non-hydrogen atoms and is selected from the group ~~comprised~~ consisting of halogen containing groups; hydrogen; alkyl; aryl; alkenyl; alkylaryl; arylalkyl; hydrocarboxy; amides, phosphides; sulfides; silylalkyls; diketones; borohydrides; and carboxyla[[n]]tes.
8. (Currently Amended) The catalyst precursor composition of claim 1, wherein each L is ~~an anionic ligand independently selected from those containing~~ contains from 1 to 20 non-hydrogen atoms and selected from the group consisting of the alkyl, arylalkyl, and halogens ~~containing groups~~.

9. (Currently Amended) The catalyst precursor composition of claim 1, wherein n is an integer from 1 to 4.
10. (Currently Amended) The catalyst precursor composition of claim 1, wherein both X and Y are nitrogen.
11. (Currently Amended) The catalyst precursor composition of claim 1, wherein R is a ~~non-bulky substituent selected from~~ straight chain alkyl group ~~and or~~ a branched chain alkyl group[[s]].
12. (Currently Amended) The catalyst precursor composition of claim 11, wherein R is a C<sub>1</sub> to C<sub>10</sub> straight chain alkyl group.
13. (Currently Amended) The catalyst precursor composition of claim 1, wherein R' contains from 3 to 50 non-hydrogen atoms and ~~be~~ is selected from the group consisting of alkyl, alkenyl, cycloalkyl, heterocyclic, alkylaryl, arylalkyl, polymeric, and inorganic ring moieties.
14. (Currently Amended) The catalyst precursor composition of claim 13, wherein R' contains from 4 to 20 non-hydrogen atoms.
15. (Currently Amended) The catalyst precursor composition of claim [[16]] 13, wherein the R' substituent has one or more of its carbon or hydrogen positions substituted with an element selected from Groups 14 to 17 of the Periodic Table of the Elements, other than carbon.
16. (Currently Amended) The catalyst precursor composition of claim 1, having a formula selected from:

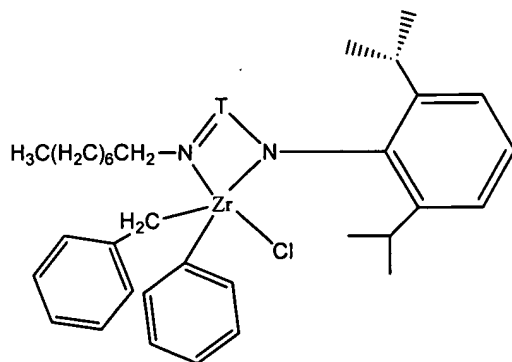


, and

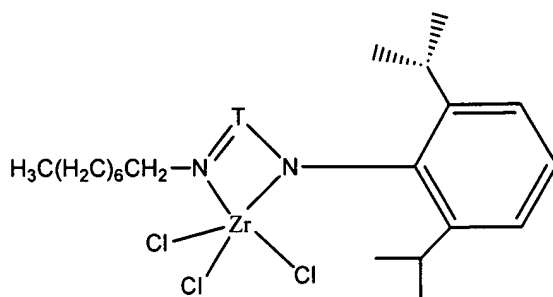
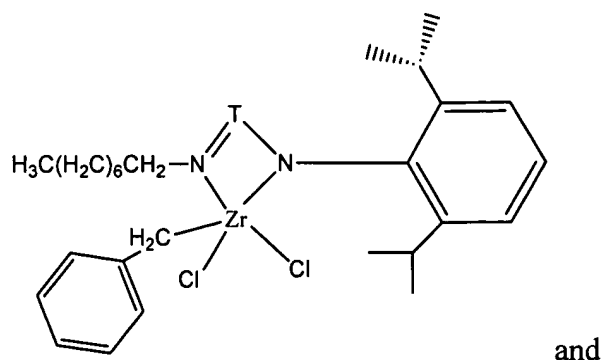


wherein T is a bridging group containing 2 or more bridging atoms.

17. (Currently Amended) The catalyst precursor composition of claim 1, which is represented by a formula selected from the group consisting of:



and

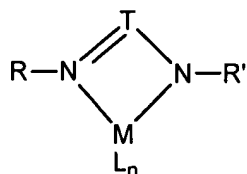


wherein T is a bridging group containing 2 or more bridging atoms.

18. (Currently Amended) The catalyst precursor composition of claim 1, wherein M is selected from Groups 3 to 7 of the Periodic Table of the Elements.

19-36. (Canceled).

37. (Currently Amended) A catalyst precursor ~~selected from~~ having the following general formula ~~the group consisting of those represented by:~~



wherein T is a bridging group containing less than 10 non-hydrogen atoms, at least 2 of which are linking atoms with respect to the nitrogen atoms and wherein at least one of the bridging atoms is a carbon atom;

M is ~~selected from Hf or and Zr~~;

each L is a ligand containing from about 1 to 20 non-hydrogen atoms and is selected from the group consisting of alkyl, arylalkyl alkyl halide, arylalkyl halide, and halogen ~~containing groups~~;

n is an integer from 1 to 3;

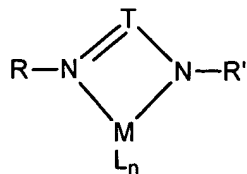
R is a ~~non-bulky substituent selected from the~~ a C<sub>1</sub> to C<sub>10</sub> straight chain alkyl group[[s]];  
and

R' is a bulky substituent that is sterically hindering with respect to which it is bonded and contains 4 to 20 non-hydrogen atoms and is selected from the group consisting of alkyl, alkenyl, cycloalkyl, heterocyclic, alkylaryl, and arylalkyl ~~groups~~.

38. (Currently Amended) The catalyst precursor ~~composition~~ of claim 37 wherein T contains at least two primary alkyl groups on the atom adjacent to Y.

39. (Currently Amended) The catalyst precursor ~~composition~~ of claim 37 wherein T contains a dimethyl group on the atom adjacent to the nitrogen group bonded to R'.

40. (Currently Amended) A catalyst composition for the polymerization of olefins, ~~which~~ said catalyst composition is the reaction product of an activator and a compound having the following structure:



wherein T is a bridging group containing less than 10 non-hydrogen atoms, at least 2 of which are linking atoms with respect to the nitrogen atoms and wherein at least one of the bridging atoms is a carbon atom;

M is ~~selected from Hf or~~ Zr;

each L is a ligand containing from about 1 to 20 non-hydrogen atoms and is selected from the group consisting of alkyl, arylalkyl alkyl halide, arylalkyl halide, and halogen ~~containing groups~~;

R is a ~~non-bulky substituent selected from the~~ a C<sub>1</sub> to C<sub>10</sub> straight chain alkyl groups;

and

R' is a bulky substituent that is sterically hindering with respect to which it is bonded and contains 4 to 20 non-hydrogen atoms and is selected from the group consisting of alkyl, alkenyl, cycloalkyl, heterocyclic, alkylaryl, and arylalkyl ~~groups~~.

41. (Currently Amended) The catalyst ~~precursor~~ composition of claim 40 wherein T contains a dimethyl group on the atom adjacent to nitrogen group bonded to R'.